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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/080,640 | 02/21/2002 | Peter E. von Behrens | 26625-1002 | 8160 |

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[REDACTED] EXAMINER

NGUYEN, HOANG M

[REDACTED] ART UNIT [REDACTED] PAPER NUMBER

3748

DATE MAILED: 06/13/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

| | | |
|------------------------------|----------------------------|--------------------|
| Office Action Summary | Application No. | Applicant(s) |
| | 10/080,640 | VON BEHRENS ET AL. |
| | Examiner Hoang M Nguyen | Art Unit 3748 |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 19 May 2003.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-19 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) The proposed drawing correction filed on _____ is: a) approved b) disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) The translation of the foreign language provisional application has been received.
- 15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|--|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ . |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ . | 6) <input type="checkbox"/> Other: _____ . |

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Applicant's amendment dated May 19, 2003, has been fully considered.

Applicant has argued that Gummin et al does not disclose a heat sink. The Examiner disagrees. Applicant's heat sink is a metal housing 47. Gummin clearly discloses a metal housing 41 containing the SMA elements and therefore clearly absorb the heat from those elements.

Applicant has argued that Gummin et al does not disclose the subject matter of claim 19. The Examiner agrees and claim 19 is no longer rejected based on Gummin et al.

Applicant has argued that the 102(e) rejection should be withdrawn because SN 09/637713 because no heat sink is claimed. Please note figure 4 of this application is the same as figure 4 in SN 09/637,713, the rejection is based on the whole disclosure of the application, not only the claims. So, the 102 (e) rejection must be maintained.

This Office Action has been made non-final because the Examiner modifies the obviousness double patenting rejection.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371© of this title before the invention thereof by the applicant for patent.

Claims 1-3, 14-15, 17-18, are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. 6326707 (Gummin et al).

Gummin et al discloses a shape memory alloy actuator comprising a plurality of conductive plates with SMA wires 36A-D, the output of the actuator is the total movement of all SMA wires.

Claim 20 is rejected under 35 U.S.C. 102(e) as being anticipated by U.S. 5165897 (Johnson).

Johnson discloses an SMA actuator comprising SMA wire 28 for actuating a power circuit switch 50.

Claims 1-20 are provisionally rejected under 35 U.S.C. 102(e) as being fully anticipated by U.S. application Serial 09/637713.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

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having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 4-5 are rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S.

6326707 (Gummin et al) in view of U.S. 2518941 (Satchwell). Gummin discloses all the claimed subject matter as set forth above in the rejection of claim 1, but does not disclose an insulating layer between the conductive plates. Satchwell et al is relied upon to disclose that it's well known to have insulating layer 4 between conductive plates to prevent shocks. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to provide insulating layer between the conductive plates in Gummin et al as taught by Satchwell for the purpose of preventing shock.

Claims 6-13, 16-18, are rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. 6326707 (Gummin et al). Gummin discloses all the claimed subject matter as set forth in the rejection of claim 1, but does not disclose the specific distance and dimension as claimed. However, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify the actuator in Gummin et al to have the specific distance and dimension as claimed for the purpose of obtaining appropriate outputs from said specific dimensions.

Claim 19 is rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. 6326707 (Gummin et al) in view of U.S. 5165897 (Johnson). Gummin discloses all the claimed subject

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matter as set forth above in the rejection of claim 1, but does not disclose the actuator activating a switch of a power circuit. Johnson discloses an SMA actuator comprising SMA wire 28 for actuating a power circuit switch 50. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to use the actuator in Gummin et al to activate a power circuit switch as taught by Johnson for the purpose of switching the circuit on/off.

1. Claims 1-20 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over the pending claims of copending Application No. 09/637,713 in view of U.S. 6326707 (Gummin et al). Although the conflicting claims are not identical, they are not patentably distinct from each other because of the following reasons.

Serial 09/637,713 recites all the claimed subject matter as claimed in this application but the arrangement of the claimed elements is different, for example, some elements are cited in dependent claims instead of in the independent claims in this application, and no heat sink. Gummin et al discloses that it's well known to provide a heat sink 41. It would have been obvious to provide a heat sink in the system of SN 09/637,713 as taught by Gummin et al for the purpose of removing heat. Moreover, a person having ordinary skill in the art would have rearrange the claimed elements to be the same as the arrangement in this application for the purpose of obtaining the same results.

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This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

2. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Nguyen whose telephone number is (703) 308-3477. The examiner can normally be reached on Monday--Thursday from 7:30 AM to 6:00 PM.

Any inquiry concerning any general questions regarding patent examining policies and procedures should be directed to Patent Assistance Center (PAC) at 800-PTO-9199 or (703)-308-HELP (703)-308-4357), or Customer Service of TC 3700 at (703) 306-5648.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Denion, can be reached on (703)-308-2623. The fax phone number for the Examiner is (703) 746-4559.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-0861.



06/12/03

A handwritten signature in black ink, appearing to read "HNG". To the right of the signature is the date "06/12/03" written in a similar cursive style.

HOANG NGUYEN
PRIMARY EXAMINER
ART UNIT 3748

Hoang Minh Nguyen
June 12, 2003